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February 11, 2000

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

RE: Petition for Rulemaking
To Modify the DTV Table of Allotments

Dear Ms. Salas:

Transmitted herewith on behalf of WJHG-TV Licensee Corp., a wholly owned subsidiary of Gray Communications Systems, Inc., is an original and four (4) copies of its Petition for Rulemaking. Specifically, WJHG seeks the allotment of DTV Channel 8 in lieu of DTV Channel 42.

Should any questions arise in connection with this matter, kindly communicate directly with the undersigned.

Respectfully submitted,

Howard J. Barr
Counsel

Enclosures

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 73.622	)	MM Docket No. _____
Of the Commission's Rules	)	
Digital Televsion Table of Allotments	)	RM No. _____
(Panama City, Florida)	)	

To: Chief, Allocations Branch

PETITION FOR RULEMAKING

WJHG-TV Licensee Corp. ("WJHG"), a wholly owned subsidiary of Gray Communications Systems, Inc., licensee of television station WJGH-TV, NTSC Channel 7, Panama City, Florida, hereby respectfully submits its Petition for Rulemaking to modify the Commission's Digital Television Table of Allotments, as described in Section 73.622 of the Commission's Rules. Specifically, WJHG requests that the Commission substitute DTV Channel 8 in lieu of Channel 42, Panama City, Florida, as the digital television allotment to be used by WJHG-DT, and to take any other steps necessary to enable WJHG to apply to construct and ultimately operate its digital facilities on Channel 8, as described in the attached Engineering Statement (Exhibit One) hereto.

The Engineering Statement confirms that the proposed allotment change is consistent with the Commission's technical rules. Specifically, the analysis demonstrates that the proposed allotment change would not result in inappropriate levels of interference to other DTV allotments

or existing NTSC stations.[1]

The public interest would be served by adoption of WJHG's proposal. The significant chance exists that WJHG will be required to construct a second tower structure to support the antenna and transmission line necessary to support a 1000 kw UHF DTV facility, but not for the proposed VHF facility. The need to construct a second support structure may result in delayed digital television service given the significant potential for zoning and aeronautical challenges because of space limitations and aeronautical considerations. The use of existing transmitting locations is environmentally preferable. *See* Section 1.1306 (Note 1) of the Commission's rules, 47 C.F.R. § 1.1306 (Note 1). Moreover, operation on VHF channel 8 will result in a significant reduction in WJHG's power bills and capital costs as compared with operation on UHF channel 42.

Accordingly, adoption of the proposal will reduce the costs to be incurred in making the digital transition and enable more of the station's limited funds to be devoted to the maintenance and improvement of other aspects of its services. In short, allotment of DTV Channel 8 in lieu of DTV Channel 42 will enable the Commission to mitigate the burdens of the digital transition on WJHG consistent with its rules and its expressed policy.

WJHG timely applied for DTV Channel 42 so as to preserve its rights. WJHG hereby affirms that it will apply for the allotted channel if its proposal is granted.

Wherefore, the premises considered, WJHG Licensee Corp. respectfully requests that the Commission adopt a rulemaking proposing to substitute DTV Channel 8 in lieu of Channel 42,

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[1] See 47 C.F.R. § 73.623; see also Sixth Report & Order, paras. 221-22.

Panama City, Florida, as the digital television allotment to be used by WJHG-DT, and to take any other steps necessary to enable WJHG to apply to construct and ultimately operate its digital facilities on Channel 8

Respectfully submitted,

WJHG LICENSEE CORP.

By: _____
Robert A. Beizer
Secretary

Gray Communications Systems, Inc.
1201 New York Avenue, NW
Suite 1000
Washington, DC 20005-3917

February 11, 2000

HJB/de
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ENGINEERING STATEMENT
prepared for
WJHG Licensee Corp.
WJHG-DT Panama City, Florida

This engineering statement has been prepared on behalf of *WJHG-DT Licensee Corp.*, in support of a *Petition for Rulemaking*. In the Federal Communications Commission's Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders on Advanced Television,[1] DTV Channel 42 was allotted as a "paired" channel for the WJHG-TV analog Channel 7. A substitute DTV channel is proposed herein for WJHG-DT.

Discussion

An engineering review of the DTV allotments and NTSC assignments in the region surrounding Panama City showed that a VHF channel could be used for WJHG-DT in lieu of the allotted UHF channel. Detailed interference studies were conducted in accordance with the terrain dependent Longley-Rice point-to-point propagation model, per the Commission's Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, July 2, 1997 ("OET-69").[2] The studies showed that Channel 8 could be used for WJHG-DT at 27 kW effective radiated power (ERP). A directional antenna pattern is proposed, as detailed in the facility summary data herein.

All stations considered in the detailed interference study are listed in the attached **Table 1**. The results of the interference study, also summarized in **Table 1**, indicate that any additional

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[1]See MM Docket 87-268, *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service,* FCC 98-315, released December 18, 1998.

[2]The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein, except that the terrain profile step size is 0.1 km (which provides a finer resolution than the Commission's standard 1 km step size). A standard cell size of 2 km was used. The Longley-Rice computer program input data, following the guidelines established under OET-69, includes a location variability of 50%, a time availability of 10%, a situation variability of 50%, horizontal polarization, 0.005 S/m conductivity, a climate constant of 15, an assumption of a continental temperate climate zone, and a receive antenna height of 10 meters. The service area for each DTV facility under study is that area predicted to receive signal levels of at least 36 dBμ using the Longley-Rice methodology, and within the DTV F(50,90) 36 dBμ service contour distance as determined per §73.625(b). In instances where the DTV reference ERP is 3.2 kW, the Grade B contour of the associated analog station (authorized as of April 3, 1997) is used to determine the extent of the DTV station's service area. The service area for each NTSC facility under study is that area predicted to receive signal levels of at least 56 dBμ using the Longley-Rice methodology, and within the NTSC F(50,50) 56 dBμ Grade B contour distance as determined per §73.684(c). Comparisons of various results of this computer program to the Commission's implementation of OET-69 show good correlation.

interference to these stations meets the Commission's 2% / 10% interference limits regarding DTV proposals. Thus, this proposal is believed to be in compliance with the provisions of §73.623(c)(2) of the Commission's rules.

DTV Channel 8 at Panama City would provide coverage to over 90 percent of the population of the interference-limited population of the WJHG-TV NTSC Channel 7. DTV Channel 42 as allotted (1000 kW) would provide interference-free service to population in excess of the NTSC service population (i.e.: 100 percent replication). Nonetheless, *WJHG Licensee Corp.* would prefer to employ a 27 kW VHF Channel 8 DTV facility, in order to avoid potentially having to construct a second tower structure to support the antenna and transmission line necessary for a 1000 kW UHF DTV facility. Such construction would possibly face zoning and aeronautical challenges. Further, the use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the Commission's Rules. The use of VHF DTV Channel 8 will also realize savings in power utility and other operating expenses, when compared to those of a 1000 kW UHF DTV facility. Coverage of Panama City with the requisite DTV service contour will be provided.

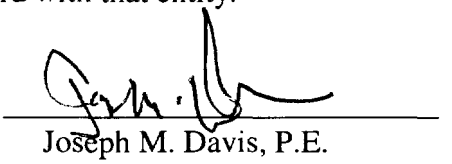
The technical data for the proposed Channel 8 allotment is summarized in the attached **Table 2**. The location and antenna height are the same as that for the current DTV Channel 42 allotment for WJHG-DT. The directional antenna pattern's relative field horizontal plane pattern is supplied as **Figure 1** and in **Table 2**, properly oriented to True North. **Figure 2** graphically presents the theoretical vertical plane (elevation) pattern for the antenna system.

Summary

It is proposed that WJHG-DT Panama City, Florida be permitted to substitute DTV Channel 8 in lieu of the allotted DTV Channel 42. Any interference caused to other DTV allotments or NTSC assignments meets the Commission's 2% / 10% *de minimis* limits. The power utility and other operating expenses of a 27 kW VHF DTV facility will be reduced from that of a comparable UHF DTV facility.

Certification

Under the penalty of perjury, the undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief. Mr. Davis is a principal in the firm of *Cavell, Mertz & Davis, Inc.*, is a Registered Professional Engineer in Virginia, holds a Bachelor of Science degree from Old Dominion University in Electrical Engineering Technology, and has submitted numerous engineering exhibits to various local governmental authorities and the Federal Communications Commission. His qualifications are a matter of record with that entity.



Joseph M. Davis, P.E.
February 8, 2000

Cavell, Mertz & Davis, Inc.
10300 Eaton Place Suite 200
Fairfax, VA 22030
(703) 591-0110

Table 1

INTERFERENCE ANALYSIS RESULTS SUMMARY

prepared for

WJHG Licensee Corp.

WJHG-DT Panama City, Florida

Stations Considered	City, State Channel, Type	Distance (km)	Baseline Population (1)	Initial Interference Percentage (2)	Additional Interference Percentage (3)	Proposed Change in Interference Population (4)	Proposed Change in Interference Percentage (5)	Final Interference Percentage (6)
WAKA (TV) (Lic)	Selma, AL 8 NTSC	230.5	681,053	0.0	0.0	10,211	1.5	1.5
WXGA-TV (Lic)	Waycross, GA 8 NTSC	285.5	380,160	0.0	0.0	143	0.0	0.0
WGTV (TV) (Lic)	Athens, GA 8 NTSC	392.6	------ no interference predicted from proposal -----					
WPGX-DT (*PRM)	Panama City, FL 9 DTV	12.3	356,612	n/a	n/a	0	---- no increase in interference ---	

Table 1

INTERFERENCE ANALYSIS RESULTS SUMMARY

Stations Considered	City, State Channel, Type	Distance (km)	Baseline Population (1)	Initial Interference Percentage (2)	Additional Interference Percentage (3)	Proposed Change in Interference Population (4)	Proposed Change in Interference Percentage (5)	Final Interference Percentage (6)
WTVM (TV) (Lic)	Columbus, GA 9 NTSC	218.1				------ no interference predicted from proposal -----		

Notes:

(1) For DTV stations, greater of NTSC or DTV Service Population, from FCC Table
For NTSC stations, total population within noise-limited contour

(2) For DTV stations, 100 percent minus FCC Table initial DTV/NTSC population match
For NTSC stations, initial percent loss: percent of population within (1) predicted to receive DTV only interference from FCC Table

(3) Additional interference experienced due to DTV facilities authorized subsequent to initial allotment table

(4) Net change in population receiving interference resulting from proposal; numbers in parenthesis indicate a *reduction* in interference

(5) Proposal's impact in terms of percentage, equals (4)/(1) times 100 percent: not to exceed *de minimis* limit of 2.0 percent

(6) Total interference: equals (2) + (3) + (5); proposal may not increase (2) + (3) above 10 percent

The determination of stations for consideration and the determination of baseline population and interference percentages were made as described in the Commission's August 10, 1998 Public Notice *"Additional Application Processing Guidelines for Digital Television"*

* DTV Channel 9 for WPGX at Panama City, FL is proposed by that station's licensee as an alternative from its assigned DTV Channel 29. The baseline population shown for the proposed WPGX DTV facility is its proposed DTV Channel 9 service population as determined before consideration of the instant WJHG proposal.

Table 2

Summary Technical Data for Proposed DTV Channel 8 Substitution

prepared for

WJHG Licensee Corp.

WJHG-DT Panama City, Florida

Coordinates (NAD-27)	30° 26' 00" N-Lat 85° 24' 51" W-Lon
Channel	8
Effective Radiated Power	27 kW
Antenna Height	301 m AMSL 265 m HAAT
Directional Antenna:	Andrew ATW8V3-HTNC-8 (0.75° electrical beamtilt)

Directional Antenna Pattern

Azimuth °T	Relative Field	Azimuth °T	Relative Field
0	0.495	180	0.962
10	0.516	190	0.989
20	0.525	200	1.000
30	0.518	210	0.992
40	0.499	220	0.964
50	0.474	230	0.915
60	0.446	240	0.852
70	0.422	250	0.783
80	0.411	260	0.708
90	0.420	270	0.632
100	0.450	280	0.559
110	0.498	290	0.495
120	0.559	300	0.445
130	0.629	310	0.413
140	0.703	320	0.403
150	0.778	330	0.413
160	0.851	340	0.437
170	0.915	350	0.466

FIGURE 1
ANTENNA HORIZONTAL PLANE PATTERN

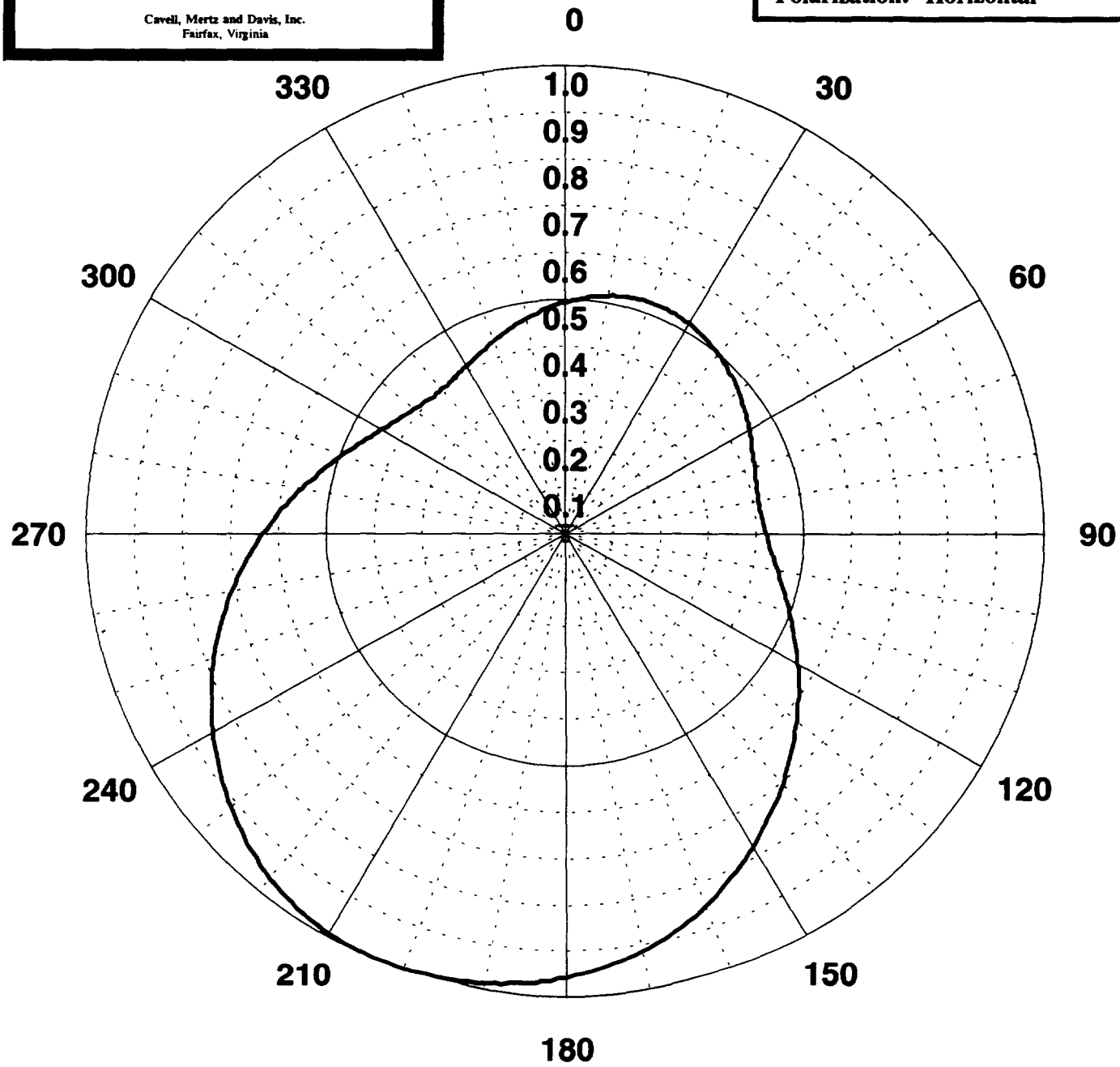
prepared February 2000 for
WJHG Licensee Corp.
WJHG-DT Panama City, Florida

Ch. 8 27 kW 265 m

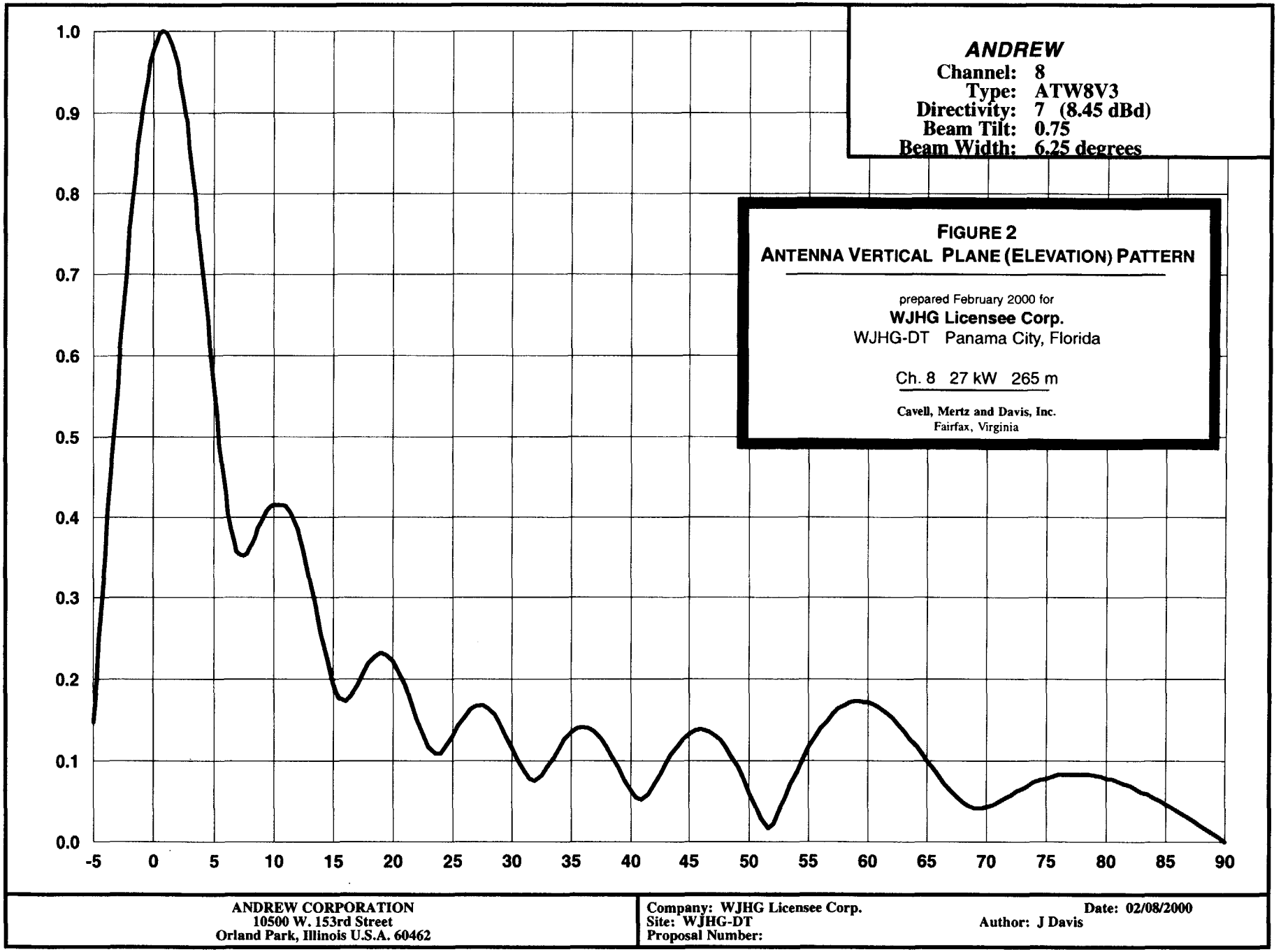
Cavell, Mertz and Davis, Inc.
Fairfax, Virginia

ANDREW

Channel: 8
Type: ATW-NC
Gain: 2.8 (4.47 dB)
Polarization: Horizontal



ANDREW CORPORATION **10500 W. 153rd Street** **Orland Park, Illinois U.S.A. 60462**	**Company: WJHG Licensee Corp.** **Date: 02/08/2000** **Site: WJHG-DT** **Author: J Davis** **Proposal Number:**



ANDREW
Channel: 8
Type: ATW8V3
Directivity: 7 (8.45 dBd)
Beam Tilt: 0.75
Beam Width: 6.25 degrees

FIGURE 2
ANTENNA VERTICAL PLANE (ELEVATION) PATTERN

prepared February 2000 for
WJHG Licensee Corp.
WJHG-DT Panama City, Florida

Ch. 8 27 kW 265 m

Cavell, Mertz and Davis, Inc.
Fairfax, Virginia

ANDREW CORPORATION
10500 W. 153rd Street
Orland Park, Illinois U.S.A. 60462

Company: WJHG Licensee Corp.
Site: WJHG-DT
Proposal Number:
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